

## METHOD AND APPARATUS FOR REPORTING CUSTOMER DATA

This application is a continuation of application Ser. No. 318,680, filed Mar. 3, 1989 abandoned.

### FIELD OF THE INVENTION

The present invention relates generally to a method and apparatus for reporting data, and more particularly to a method and apparatus for automatically contacting customers and reporting customer order status data by a customer location.

#### 1. Description of the Prior Art

Various arrangements utilized for providing customers with order status information typically require significant manual operations. For example, in such arrangements that utilize a computer system for maintaining order status information, a clerk is typically required to access the computer system to collect data pertinent to a particular customer and then transmit the collected information to that customer.

It is desirable to provide a system for automatically contacting customers and reporting customer order status data.

#### 2. Summary of the Invention

Among the principal objects of the present invention are to provide a method and an apparatus for automatically contacting customers and reporting customer order status data, providing such reported data by a customer location for each particular customer based upon stored customer information and providing such reported data at a selected predetermined periodic time interval for each customer and at a predetermined time of day.

In brief, the objects and advantages of the present invention are achieved by a method and an apparatus for automatically contacting customers and reporting customer order status data. A memory is provided for receiving and storing the customer order status information. The customer order status data includes product order information, scheduled and actual shipping dates and each customer's telephone number. A telephone dialer is provided for dialing customer telephone numbers. Customer order status data is sorted by each customer's telephone number and a separate customer report file is generated for each customer. The telephone dialer sequentially dials the customer telephone numbers and a corresponding customer report facsimile is automatically transmitted to the customer.

### BRIEF DESCRIPTION OF THE DRAWINGS

The present invention together with the above and other objects and advantages may best be understood from the following detailed description of the embodiment of the invention illustrated in the drawings, wherein:

FIG. 1 is a block diagram representation of the data reporting system of the invention;

FIGS. 2 and 3 are flow charts illustrating the logical operations of the system of FIG. 1.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, in FIG. 1 there is illustrated a block diagram representation of the customer data reporting system of the present invention designated generally by the reference character 10. A main

frame computer system designated by the reference character 12 includes a memory designated by the reference character 14 for receiving and storing a plurality of data files, a plurality of terminals or data entry devices (one shown) designated as 16 for entering data to the computer system 12 and a program control module 18 for storing a customer report generation and control program of the invention. The data files stored in the memory 14 include an order file 14A, a telephone list file 14B, a customer data file 14C and a customer report file 14D. The order file 14A includes data relating to products ordered including orders shipped and pending or open orders scheduled for shipment together with predefined numbers representing product codes, quantity, ship to, sold to, account and order numbers by a customer location. Order data is identified for a predetermined time period, for example, such as for 5 days prior to the current date, and utilized to generate the customer reports. The report is thus limited to current information with order data over 5 days old eliminated from the report. A facsimile transmission receiving telephone number for each customer is included in the telephone list file 14B. The customer data file 14C includes additional information by customer that may be included in the generated customer report, such as various title information. In accordance with a feature of the invention, the customer report generation and control program runs without requiring operator intervention at periodic intervals, for example, once a day, and at a predetermined time after normal business hours providing timely information to the customers and efficient data processing. The logical steps performed to generate the customer report data file stored at block 14D is illustrated and described with respect to FIG. 2.

A personal computer system designated by 20 is coupled to the main frame computer system 12 for periodically retrieving the customer data report file. The personal computer system includes a program control module 22 for storing a customer report conversion and control program of the invention illustrated and described with respect to FIG. 3. Functional blocks represented within the personal computer system 20 include a report storage block 24 for storing a translated customer report data file from the customer data report file retrieved from block 14D and a conversion and command routine block 26 programmed to generate a plurality of separate customer report data files and a command file for sending the separate customer report files by facsimile transmission to a customer location. Separate data files for each of the particular customers C1-CN included in the formatted customer report data file are stored at a plurality of blocks 28 and the command file including a master telephone list for the particular customers C1-CN is stored at a block 30. A telephone dialer and communications module 32 is coupled to command file block 30 and the customer data file blocks 28 for sequentially transmitting a facsimile document 34 for each of the customers C1-CN via a communication link 36.

Referring now to FIG. 2, there is shown a flow chart illustrating the logical steps performed by the main frame computer system 12 under the control of the customer report generation and control program module 18 in accordance with features of the invention. The sequential operations for generating the report begin at an identified predetermined set time of day. Then a determination of the current date and day of week is made. Customer order data records stored within mem-